

Amendment dated: June 8, 2004

Response to Office Action dated March 11, 2004

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-4, 6-9 and 11-27 are pending in the present application. Claims 1, 6, 7, 11, 18 and 24 have been amended and claims 5 and 10 have been cancelled by the present amendment.

In the outstanding Office Action, claims 1-27 were objected to; claims 5 and 10 were rejected under 35 U.S.C. § 112, first paragraph; and claims 1-27 were rejected under 35 U.S.C. § 102(b) as anticipated by Spartz et al.

Regarding the objection to claims 1-27, the outstanding Office Action indicates many limitations do not have spaces between the words. There appears to have been a printing problem. Accordingly, a copy of the claims enclosed include the proper spaces. Therefore, it is respectfully requested this objection be withdrawn.

Regarding the rejection of claims 5 and 10 under 35 U.S.C. § 112, first paragraph, claims 5 and 10 have been canceled. Accordingly, this rejection is moot.

Claims 1-27 stand rejected under 35 U.S.C. § 102(b) as anticipated by Spartz et al. This rejection is respectfully traversed.

Amended claim 1 is directed to a method of reporting a changed service option in a mobile communication system including transmitting a message type, a channel number representing a communication path being used, encryption information, and contents of the changed service option from a base station/base station controller (BS/BSC) to a mobile

switching center after a service re-negotiation procedure is performed between a mobile station and the BS/BSC. Further, the service re-negotiation procedure occurs after the mobile switching center has been notified about an initially negotiated service option, and after the mobile station, the BS/BSC and the mobile switching center has entered into a busy state using the initially negotiated service option. Independent claims 6, 11, 18 and 24 include similar features of varying scope.

As discussed in the Description of the Related Art of the present application with regard to related art Figs. 1-3 and in particular Fig. 2, after an initial service option has been negotiated and the assignment complete message has been sent from the base station/base station controller to the mobile switching center (see step 207 in Fig. 2), the mobile station, base station/base station controller, and the mobile switching center enter into a busy state. Further, the mobile switching center uses the service option included in the assignment completion message received from the base station/base station controller for creation of the billing information (see page 4, paragraph [14]).

Meanwhile, if it is required that the base station/base station controller changes the service option due to the purpose of the resource management of the system or by the request of the user during the call process of the system, a service option re-negotiation procedure is performed according to the TIA/EIA IS-2000.5 the communication standard for the signal process between the mobile station and the base station/base station controller (see step 208 in Fig. 2 and page 5, paragraph [15]).

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At this time, the mobile switching center creates the billing information using only the initial service option negotiated during the initial call determination. If the service option is changed from the call quality identifier of the 13k voice to the 8k EVRC through the service re-negotiation between the mobile station and the base station/base station controller in consideration of the traffic of the base station/base station controller or the resource management during the call process in a state that the service option for the call quality identifier is determined as the 13k voice at the initial call determination, there is no way to report the contents of change to the mobile switching center, and thus the data created based on only the service option negotiated during the initial call determination is used, causing a problem in utilizing the created data (see page 7, paragraph [18]).

The present invention solves this problem by transmitting a message type, a channel number representing a communication path being used, encryption information, and contents of the changed service option from a base station/base station controller (BS/BSC) to a mobile switching center after a service re-negotiation procedure is performed between a mobile station and the BS/BSC. Further, the service re-negotiation procedure occurs after the BS/BSC has notified the mobile switching center about an initially negotiated service option, and the mobile station, the BS/BSC and the mobile switching center has entered into a busy state using the initially negotiated service option. The features are shown in Figs. 4 and 5, for example.

In more detail, Fig. 5 is a non-limiting view illustrating the structure of an assignment completion message of Fig. 4. In this example, the present invention utilizes the conventional 3G-IOS A1 message structure (of Fig. 3) for reporting (step 207 in Fig. 2) the completion of call

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determination to the mobile switching center, and newly defines a service option list that is an information element including the service re-negotiation result between the mobile station and the base station/base station controller (see page 5, paragraph [42]).

The outstanding Office Action indicates Spartz et al. teach the claimed invention and cites Figs. 1 and 6. However, it is respectfully noted that Fig. 6 is merely directed to an initially negotiated service option and there is no renegotiation procedure performed between a mobile station and a BS/BSC that occurs after the BS/BSC has notified the mobile switching center about an initially negotiated service center, and after the elements have entered into a busy state using the initially negotiated service option. Rather, Fig. 6 merely describes setting up a call using an initially negotiated service option as in the background related art discussed in the specification, but does not teach or suggest transmitting this information after a service re-negotiation procedure is performed as claimed by the present invention.

Accordingly, it is respectfully submitted independent claims 1, 6, 11, 18 and 24 and each claim depending therefrom are allowable.

CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance are earnestly solicited. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, David A. Bilodeau, at the telephone number listed below.

Serial No. 09/955,166

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To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
FLESHNER & KIM, LLP



Daniel Y.J. Kim, Esq.
Registration No. 36,186
David A. Bilodeau, Esq.
Registration No. 42,325

P.O. Box 221200
Chantilly, Virginia 20153-1200
703-766-3701 DYK/DAB:kny
Date: JUNE 8, 2004

Please direct all correspondence to Customer Number 34610

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